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\* W E L C O M E T O T H E \*  
\* U . S . P A T E N T T E X T F I L E \*  
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=> s microfab? and (pcr or polymerase chair reaction)

822 MICROFAB?  
5801 PCR  
8860 POLYMERASE  
15928 CHAIR  
441038 REACTION  
0 POLYMERASE CHAIR REACTION  
(POLYMERASE(W)CHAIR(W)REACTION)

L1 24 MICROFAB? AND (PCR OR POLYMERASE CHAIR REACTION)

=> s microfab? and (pcr or polymerase chain reaction)

822 MICROFAB?  
5801 PCR  
8860 POLYMERASE  
289116 CHAIN  
441038 REACTION  
3981 POLYMERASE CHAIN REACTION  
(POLYMERASE(W)CHAIN(W)REACTION)

L2 27 MICROFAB? AND (PCR OR POLYMERASE CHAIN REACTION)

=> d 1-27

1. 5,726,026, Mar. 10, 1998, Mesoscale sample preparation device and systems for determination and processing of analytes; Peter Wilding, et al., 435/7.21; 422/50, 55, 58, 68.1; 435/91.1, 91.2, 810; 436/527, 538, 807 [IMAGE AVAILABLE]

2. 5,716,842, Feb. 10, 1998, Miniaturized flow thermocycler; Volker Baier, et al., 435/283.1; 422/68.1, 82.11, 102, 109, 198; 435/289.1, 293.1 [IMAGE AVAILABLE]

3. 5,716,825, Feb. 10, 1998, Integrated nucleic acid analysis system for MALDI-TOF MS; William S. Hancock, et al., 435/286.5; 250/288; 422/68.1; 435/287.2, 287.9, 288.4 [IMAGE AVAILABLE]

4. 5,707,799, Jan. 13, 1998, Devices and methods utilizing arrays of structures for analyte capture; Douglas D. Hansmann, et al., 435/6; 422/55, 57, 58, 101; 435/7.2, 7.5, 7.9, 7.92, 7.93, 7.94, 287.1, 287.2, 287.3, 288.2, 810; 436/164, 172, 514, 518, 527, 531, 804, 805, 809, 810 [IMAGE AVAILABLE]

5. 5,674,742, Oct. 7, 1997, **Microfabricated** reactor; M. Allen Northrup, et al., 435/286.5; 417/322, 413.3; 422/102; 435/287.2, 288.3, 288.5 [IMAGE AVAILABLE]

6. 5,660,990, Aug. 26, 1997, Surface immobilization of magnetically collected materials; Galla Chandra Rao, et al., 435/6; 209/214, 217; 435/5, 7.1, 7.25, 7.9, 91.2, 261; 436/501, 518, 526, 807, 824; 530/388.1; 536/24.3 [IMAGE AVAILABLE]

7. 5,646,039, Jul. 8, 1997, **Microfabricated** reactor; M. Allen Northrup, et al., 435/287.2; 73/54.02, 54.41, DIG.4; 366/115, 127; 422/68.1; 435/288.3, 305.1 [IMAGE AVAILABLE]

8. 5,641,658, Jun. 24, 1997, Method for performing amplification of nucleic acid with two primers bound to a single solid support;

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PJS  
08/482,933

9. 5,639,423, Jun. 17, 1997, **Microfabricated** reactor; M. Allen Northrup, et al., 422/50; 56/345; 422/68.1; 435/283.1, 285.1, 286.5, 287.1, 287.2, 287.3, 287.6, 288.3, 288.4, 289.1, 302.1, 305.2, 305.3 [IMAGE AVAILABLE]
10. 5,637,469, Jun. 10, 1997, Methods and apparatus for the detection of an analyte utilizing mesoscale flow systems; Peter Wilding, et al., 435/7.21; 422/55, 56, 57, 58; 435/6, 7.2, 287.1, 287.2, 287.9, 288.4, 288.5, 288.7, 810, 970; 436/164, 514, 518, 524, 527, 531, 533, 534, 805, 806, 807, 809 [IMAGE AVAILABLE]
11. 5,635,358, Jun. 3, 1997, Fluid handling methods for use in mesoscale analytical devices; Peter Wilding, et al., 435/7.2; 422/55, 58, 61, 101; 435/7.21, 259, 287.1, 287.2, 288.2, 288.4, 288.5, 288.7, 810; 436/164, 165, 514, 518, 524, 527, 805, 806, 807, 809, 824 [IMAGE AVAILABLE]
12. 5,632,957, May 27, 1997, Molecular biological diagnostic systems including electrodes; Michael J. Heller, et al., 422/68.1, 50, 52, 55, 56, 61, 62, 63, 67, 69, 81, 82.01, 82.02, 82.03, 82.04, 82.05; 435/6, 7.1, 173.1; 436/501; 536/22.1, 23.1, 24.1; 935/77, 78, 88 [IMAGE AVAILABLE]
13. 5,624,845, Apr. 29, 1997, Assembly and a method suitable for identifying a code; Hemantha K. Wickramasinghe, et al., 435/287.2; 250/306, 311; 385/15, 31; 435/288.7 [IMAGE AVAILABLE]
14. 5,622,831, Apr. 22, 1997, Methods and devices for manipulation of magnetically collected material; Paul A. Liberti, et al., 435/7.21; 210/222, 695; 422/50; 435/5, 6, 7.32, 7.94; 436/52, 526, 806, 807, 824 [IMAGE AVAILABLE]
15. 5,609,744, Mar. 11, 1997, Assembly suitable for identifying a code sequence of a biomolecule in a gel embodiment; Frederic Zenharusern, et al., 204/606, 616; 356/301, 318; 422/82.01, 82.08; 435/287.1, 287.2; 935/77, 80 [IMAGE AVAILABLE]
16. 5,607,568, Mar. 4, 1997, Assembly suitable for identifying a code sequence of a biomolecule in a free-solution embodiment; Frederic Zenharusern, et al., 204/600, 452, 456, 461, 603, 612 [IMAGE AVAILABLE]
17. 5,605,662, Feb. 25, 1997, Active programmable electronic devices for molecular biological analysis and diagnostics; Michael J. Heller, et al., 422/68.1; 204/600, 601; 422/50, 55, 56, 57, 58, 63, 69, 82.01, 82.02, 82.05, 82.06, 82.07, 82.08, 82.09, 129, 131, 138; 435/6, 7.1, 90, 91.1, 91.2, 91.3, 91.5, 91.51, 173.1, 174, 176, 177, 283.1, 285.1, 285.2, 287.1, 287.2, 287.3, 287.7, 287.8, 287.9, 288.7, 290.1, 292.1, 299.1, 808, 814; 436/63, 164, 165, 166, 169, 172, 175, 501, 518, 524, 525, 528, 531, 532, 535, 805 [IMAGE AVAILABLE]
18. 5,601,982, Feb. 11, 1997, Method and apparatus for determining the sequence of polynucleotides; Jeannine P. Sargent, et al., 435/6; 250/309, 311; 324/158.1; 422/82.01, 82.05; 435/287.2 [IMAGE AVAILABLE]
19. 5,589,136, Dec. 31, 1996, Silicon-based sleeve devices for chemical reactions; M. Allen Northrup, et al., 422/102, 82.05, 82.09, 129, 131; 435/285.1, 292.1 [IMAGE AVAILABLE]
20. 5,587,128, Dec. 24, 1996, Mesoscale polynucleotide amplification devices; Peter Wilding, et al., 422/50, 54, 55, 56, 57, 58, 68.1, 69, 82.01, 82.02, 82.05, 82.06, 82.07, 82.08, 82.09, 129, 131, 138; 435/6, 90, 91.1, 91.2, 91.3, 91.5, 91.51, 173.1, 174, 176, 177, 283.1, 285.1, 285.2, 287.1, 287.2, 287.3, 287.7, 287.8, 287.9, 288.7, 289.1, 290.1, 292.1, 299.1, 808, 810, 814; 436/63, 164, 165, 166, 169, 172, 175, 518, 524, 525, 528, 531, 532, 535; 536/22.1, 23.1; 935/77, 78, 88 [IMAGE AVAILABLE]

AVAILABLE]

21. 5,585,069, Dec. 17, 1996, Partitioned microelectronic and fluidic device array for clinical diagnostics and chemical synthesis; Peter J. Zanzucchi, et al., 422/100; 204/450, 600; 422/58, 68.1; 436/43 [IMAGE AVAILABLE]

22. 5,538,898, Jul. 23, 1996, Method suitable for identifying a code sequence of a biomolecule; Hemantha K. Wickramasinghe, et al., 436/94; 422/82.01, 82.05, 82.08, 82.12; 436/164, 177 [IMAGE AVAILABLE]

23. 5,498,392, Mar. 12, 1996, Mesoscale polynucleotide amplification device and method; Peter Wilding, et al., 422/68.1, 50, 55, 61, 62, 63, 82.05, 102; 435/6, 91.1, 91.2, 285.1, 285.2, 810; 436/807; 935/78, 88 [IMAGE AVAILABLE]

24. 5,486,335, Jan. 23, 1996, Analysis based on flow restriction; Peter Wilding, et al., 422/55, 58, 61, 68.1, 73; 435/7.2, 7.21, 287.1, 287.2, 288.7; 436/164, 524, 809 [IMAGE AVAILABLE]

25. 5,427,946, Jun. 27, 1995, Mesoscale sperm handling devices; Larry J. Kricka, et al., 435/288.5; 422/58, 61; 435/7.2, 7.21, 259; 436/501, 524, 807, 809 [IMAGE AVAILABLE]

26. 5,304,487, Apr. 19, 1994, Fluid handling in mesoscale analytical devices; Peter Wilding, et al., 435/29; 210/500.26, 634; 216/2, 56; 422/55, 58, 61, 101, 947; 435/7.2, 7.21; 436/164, 524, 809 [IMAGE AVAILABLE]

27. 5,296,375, Mar. 22, 1994, Mesoscale sperm handling devices; Larry J. Kricka, et al., 435/2; 422/58, 61, 947; 435/7.2, 7.21, 29, 259, 283.1, 288.5; 436/501, 524, 807, 809 [IMAGE AVAILABLE]

=> s polynucleot?(5a)amplif? and (microfab? or microscale)

4948 POLYNUCLEOT?  
235367 AMPLIF?  
198 POLYNUCLEOT?(5A)AMPLIF?  
822 MICROFAB?  
435 MICROSCALE

L3 9 POLYNUCLEOT?(5A)AMPLIF? AND (MICROFAB? OR MICROSCALE)

=> s l3 not l2

L4 2 L3 NOT L2

=> d l 2

1. 5,563,060, Oct. 8, 1996, Micro-libraries for screening cell populations; John Hozier, 435/346, 252.33, 254.22, 348, 419 [IMAGE AVAILABLE]

2. 5,326,691, Jul. 5, 1994, Micro-libraries and methods of making and manipulating them methods for generating and analyzing micro-libraries; John Hozier, 435/6, 7.2, 30 [IMAGE AVAILABLE]

=> s polynucleot?(5a)amplif? and miniatur?

4948 POLYNUCLEOT?  
235367 AMPLIF?  
198 POLYNUCLEOT?(5A)AMPLIF?  
38896 MINIATUR?

L5 7 POLYNUCLEOT?(5A)AMPLIF? AND MINIATUR?

=> s l5 not l2

=> d 12 1-4 8 12 13 15-20 22 cit ab

1. 5,726,026, Mar. 10, 1998, Mesoscale sample preparation device and systems for determination and processing of analytes; Peter Wilding, et al., 435/7.21; 422/50, 55, 58, 68.1; 435/91.1, 91.2, 810; 436/527, 538, 807 [IMAGE AVAILABLE]

US PAT NO: 5,726,026 [IMAGE AVAILABLE]

L2: 1 of 27

ABSTRACT:

A mesoscale sample preparation device capable of providing microvolume test samples, separated into a cell-enriched fraction and a fraction of reduced cell content, for performing various analyses, such as binding assays, determinations involving polynucleotide amplification and the like. Analytical systems including such devices are also disclosed.

2. 5,716,842, Feb. 10, 1998, Miniaturized flow thermocycler; Volker Baier, et al., 435/283.1; 422/68.1, 82.11, 102, 109, 198; 435/289.1, 293.1 [IMAGE AVAILABLE]

US PAT NO: 5,716,842 [IMAGE AVAILABLE]

L2: 2 of 27

ABSTRACT:

A miniaturized thermocycler is provided for carrying out thermally controlled biochemical or biological molecular processes, in particular polymerase chain reactions. The aim of the invention is to provide a miniaturized thermocycler which enables such reactions to be carried out more effectively, avoids the problem of parasitic heat absorbers and can be manufactured inexpensively in series. This aim is achieved by virtue of the fact that the sample holder (1) is designed as a series of meanders winding in a plane, the sample holder (1) has a groove in a wall and closed over by a cover, the groove passing alternately through comparable heating zones (2) and cooling zones (3), located at intervals along the groove, as it meanders.

3. 5,716,825, Feb. 10, 1998, Integrated nucleic acid analysis system for MALDI-TOF MS; William S. Hancock, et al., 435/286.5; 250/288; 422/68.1; 435/287.2, 287.9, 288.4 [IMAGE AVAILABLE]

US PAT NO: 5,716,825 [IMAGE AVAILABLE]

L2: 3 of 27

ABSTRACT:

An integrated nucleic acid sample analysis system for matrix-assisted laser-desorption/ionization time-of-flight mass spectroscopy (MALDI-TOF MS) is described. The integrated system comprises a miniaturized sample preparation compartment interfaced directly with a MALDI-TOF ionization surface for amplifying and/or otherwise chemically manipulating an oligonucleotide analyte and presenting the analyte to a MALDI ionization surface for mass spectrometry analysis. The miniaturized integrated sample handling system disclosed herein finds application in the amplification and analysis of DNA samples for genetic diagnosis and other uses.

4. 5,707,799, Jan. 13, 1998, Devices and methods utilizing arrays of structures for analyte capture; Douglas D. Hansmann, et al., 435/6; 422/55, 57, 58, 101; 435/7.2, 7.5, 7.9, 7.92, 7.93, 7.94, 287.1, 287.2, 287.3, 288.2, 810; 436/164, 172, 514, 518, 527, 531, 804, 805, 809, 810 [IMAGE AVAILABLE]

US PAT NO: 5,707,799 [IMAGE AVAILABLE]

L2: 4 of 27

ABSTRACT:

The present invention relates to analytical devices for determining the presence or amount of an analyte in a test sample. The analytical devices comprise an inlet port, a vent, a channel, and an array of structures. The structures have immobilized reagent covalently or non-covalently attached to the surface of the structures. The immobilized reagent captures analyte in the test sample where it is detected by a detection system. The present invention also provides methods and reagents for performing assays utilizing the analytical devices of the present invention. The present invention also provides methods of manufacturing the analytical devices of the present invention.

8. 5,641,658, Jun. 24, 1997, Method for performing amplification of nucleic acid with two primers bound to a single solid support; Christopher P. Adams, et al., 435/91.2, 6 [IMAGE AVAILABLE]

US PAT NO: 5,641,658 [IMAGE AVAILABLE]

L2: 8 of 27

ABSTRACT:

This invention features methods and apparatus for performing nucleic acid hybridization and amplification processes on a support. Such methods and apparatus are useful for synthesizing nucleic acid and detecting target nucleic acid for diagnostics and therapeutics.

12. 5,632,957, May 27, 1997, Molecular biological diagnostic systems including electrodes; Michael J. Heller, et al., 422/68.1, 50, 52, 55, 56, 61, 62, 63, 67, 69, 81, 82.01, 82.02, 82.03, 82.04, 82.05; 435/6, 7.1, 173.1; 436/501; 536/22.1, 23.1, 24.1; 935/77, 78, 88 [IMAGE AVAILABLE]

US PAT NO: 5,632,957 [IMAGE AVAILABLE]

L2: 12 of 27

ABSTRACT:

A system for performing molecular biological diagnosis, analysis and multi-step and multiplex reactions utilizes a self-addressable, self-assembling microelectronic system for actively carrying out controlled reactions in microscopic formats. These reactions include most molecular biological procedures, such as nucleic acid hybridization, antibody/antigen reaction, and clinical diagnostics. Multi-step combinatorial biopolymer synthesis may be performed. A controller interfaces with a user via input/output devices, preferably including a graphical display. Independent electronic control is achieved for the individual microlocations. In the preferred embodiment, the controller interfaces with a power supply and interface, the interface providing selective connection to the microlocations, polarity reversal, and optionally selective potential or current levels to individual electrodes. A system for performing sample preparation, hybridization and detection and data analysis integrates multiple steps within a combined system. Charged materials are transported preferably via free field electrophoresis. DNA complexity reduction is achieved preferably by binding of DNA to a support, followed by cleaving unbound materials, such as by restriction enzymes, followed by transport of the cleaved DNA fragments. Active, programmable matrix devices are formed in a variety of formats, including a square matrix pattern with fanned out electrical connections, an array having electrical connections and optionally optical connections from beneath the specific microlocations. A highly automated DNA diagnostic system results.

13. 5,624,845, Apr. 29, 1997, Assembly and a method suitable for identifying a code; Hemantha K. Wickramasinghe, et al., 435/287.2; 250/306, 311; 385/15, 31; 435/288.7 [IMAGE AVAILABLE]

US PAT NO: 5,624,845 [IMAGE AVAILABLE]

L2: 13 of 27

ABSTRACT:

An assembly suitable for identifying a code sequence of a biomolecule.

The assembly includes means comprising a near-field probe for generating a super-resolution chemical analysis of the portion of a biomolecule; and means for correlating the super-resolution chemical analysis of the portion of the biomolecule with a broad spectral content of a referent biomolecule, for generating a code sequencing of the portion of the biomolecule.

15. 5,609,744, Mar. 11, 1997, Assembly suitable for identifying a code sequence of a biomolecule in a gel embodiment; Frederic Zenharusern, et al., 204/606, 616; 356/301, 318; 422/82.01, 82.08; 435/287.1, 287.2; 935/77, 80 [IMAGE AVAILABLE]

US PAT NO: 5,609,744 [IMAGE AVAILABLE]

L2: 15 of 27

ABSTRACT:

An assembly suitable for identifying a code sequence of at least a portion of a biomolecule in a gel embodiment. The assembly comprises first means for migrating and separating a portion of a biomolecule in a gel; second means comprising a near-field probe for generating a super-resolution chemical analysis of a portion of a biomolecule; and, third means for correlating the super-resolution chemical analysis of the portion of the biomolecule with a broad spectral content of a referent biomolecule, for generating a code sequencing of the portion of the biomolecule.

16. 5,607,568, Mar. 4, 1997, Assembly suitable for identifying a code sequence of a biomolecule in a free-solution embodiment; Frederic Zenharusern, et al., 204/600, 452, 456, 461, 603, 612 [IMAGE AVAILABLE]

US PAT NO: 5,607,568 [IMAGE AVAILABLE]

L2: 16 of 27

ABSTRACT:

An assembly suitable for identifying a code sequence of at least a portion of a biomolecule in a free-solution embodiment. The assembly comprises first means for migrating and separating a portion of a biomolecule in a free-solution; second means comprising a near-field probe for generating a super-resolution chemical analysis of a portion of a biomolecule; and, third means for correlating the super-resolution chemical analysis of the portion of the biomolecule with a broad spectral content of a referent biomolecule, for generating a code sequencing of the portion of the biomolecule.

17. 5,605,662, Feb. 25, 1997, Active programmable electronic devices for molecular biological analysis and diagnostics; Michael J. Heller, et al., 422/68.1; 204/600, 601; 422/50, 55, 56, 57, 58, 63, 69, 82.01, 82.02, 82.05, 82.06, 82.07, 82.08, 82.09, 129, 131, 138; 435/6, 7.1, 90, 91.1, 91.2, 91.3, 91.5, 91.51, 173.1, 174, 176, 177, 283.1, 285.1, 285.2, 287.1, 287.2, 287.3, 287.7, 287.8, 287.9, 288.7, 290.1, 292.1, 299.1, 808, 814; 436/63, 164, 165, 166, 169, 172, 175, 501, 518, 524, 525, 528, 531, 532, 535, 805 [IMAGE AVAILABLE]

US PAT NO: 5,605,662 [IMAGE AVAILABLE]

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ABSTRACT:

A self-addressable, self-assembling microelectronic device is designed and fabricated to actively carry out and control multi-step and multiplex molecular biological reactions in microscopic formats. These reactions include nucleic acid hybridization, antibody/antigen reaction, diagnostics, and biopolymer synthesis. The device can be fabricated using both microlithographic and micromachining techniques. The device can electronically control the transport and attachment of specific binding entities to specific micro-locations. The specific binding entities include molecular biological molecules such as nucleic acids and polypeptides. The device can subsequently control the transport and reaction of analytes or reactants at the addressed specific microlocations. The device is able to concentrate analytes and reactants,

remove non-specifically bound molecules, provide stringency control for DNA hybridization reactions, and improve the detection of analytes. The device can be electronically replicated.

18. 5,601,982, Feb. 11, 1997, Method and apparatus for determining the sequence of polynucleotides; Jeannine P. Sargent, et al., 435/6; 250/309, 311; 324/158.1; 422/82.01, 82.05; 435/287.2 [IMAGE AVAILABLE]

US PAT NO: 5,601,982 [IMAGE AVAILABLE]

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ABSTRACT:

Methods for determining the sequence of a polynucleotide are described. The method utilizes a novel apparatus. Linearly oriented nucleic acids are scanned by scanning tunneling microscopy, and the presence of base specific labels determined. The information is compiled for different labels, and the data sets combined to provide the full nucleotide sequence.

19. 5,589,136, Dec. 31, 1996, Silicon-based sleeve devices for chemical reactions; M. Allen Northrup, et al., 422/102, 82.05, 82.09, 129, 131; 435/285.1, 292.1 [IMAGE AVAILABLE]

US PAT NO: 5,589,136 [IMAGE AVAILABLE]

L2: 19 of 27

ABSTRACT:

A silicon-based sleeve type chemical reaction chamber that combines heaters, such as doped polysilicon for heating, and bulk silicon for convection cooling. The reaction chamber combines a critical ratio of silicon and silicon nitride to the volume of material to be heated (e.g., a liquid) in order to provide uniform heating, yet low power requirements. The reaction chamber will also allow the introduction of a secondary tube (e.g., plastic) into the reaction sleeve that contains the reaction mixture thereby alleviating any potential materials incompatibility issues. The reaction chamber may be utilized in any chemical reaction system for synthesis or processing of organic, inorganic, or biochemical reactions, such as the **polymerase chain reaction (PCR)** and/or other DNA reactions, such as the ligase chain reaction, which are examples of a synthetic, thermal-cycling-based reaction. The reaction chamber may also be used in synthesis instruments, particularly those for DNA amplification and synthesis.

20. 5,587,128, Dec. 24, 1996, Mesoscale polynucleotide amplification devices; Peter Wilding, et al., 422/50, 54, 55, 56, 57, 58, 68.1, 69, 82.01, 82.02, 82.05, 82.06, 82.07, 82.08, 82.09, 129, 131, 138; 435/6, 90, 91.1, 91.2, 91.3, 91.5, 91.51, 173.1, 174, 176, 177, 283.1, 285.1, 285.2, 287.1, 287.2, 287.3, 287.7, 287.8, 287.9, 288.7, 289.1, 290.1, 292.1, 299.1, 808, 810, 814; 436/63, 164, 165, 166, 169, 172, 175, 518, 524, 525, 528, 531, 532, 535; 536/22.1, 23.1; 935/77, 78, 88 [IMAGE AVAILABLE]

US PAT NO: 5,587,128 [IMAGE AVAILABLE]

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ABSTRACT:

Disclosed are devices for amplifying a preselected polynucleotide in a sample by conducting a polynucleotide amplification reaction. The devices are provided with a substrate **microfabricated** to include a polynucleotide amplification reaction chamber, having at least one cross-sectional dimension of about 0.1 to 1000 .mu.m. The device also includes at least one port in fluid communication with the reaction chamber, for introducing a sample to the chamber, for venting the chamber when necessary, and, optionally, for removing products or waste material from the device. The reaction chamber may be provided with reagents required for amplification of a preselected polynucleotide. The device also may include means for thermally regulating the contents of the reaction chamber, to amplify a preselected polynucleotide. Preferably, the reaction chamber is fabricated with a high surface to volume ratio,

to facilitate thermal regulation. The amplification reaction chamber also may be provided with a composition which diminishes inhibition of the amplification reaction by material comprising a wall of the reaction chamber, when such treatment is required.

22. 5,538,898, Jul. 23, 1996, Method suitable for identifying a code sequence of a biomolecule; Hemantha K. Wickramasinghe, et al., 436/94; 422/82.01, 82.05, 82.08, 82.12; 436/164, 177 [IMAGE AVAILABLE]

US PAT NO: 5,538,898 [IMAGE AVAILABLE]

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ABSTRACT:

A method suitable for identifying a code sequence of a biomolecule. The method comprises the steps of using a near-field probe technique for generating a super-resolution chemical analysis of at least a portion of the biomolecule; and, correlating the chemical analysis with a broad spectral content of a referent biomolecule for generating code sequencing.

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